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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/041,971	01/02/2002	Stephen M. Bisque	Bisque-App	4239

7590

01/07/2005

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EXAMINER

TRAN, MYLINH T

ART UNIT	PAPER NUMBER
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2179

DATE MAILED: 01/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

10/041,971

Applicant(s)

BISQUE ET AL.

Examiner

Mylinh T Tran

Art Unit

2179

-- The MAILING DATE of this communication appears on the cover sheet with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/02/02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 10 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 1, 10 and 19, "the results and status" and "the means" lack of antecedent of basis. They are indefinite. It is not clear which elements are being referred to.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baun et al. [US. 2004/0047036] in view of Yoshimura et al. [US. 6,556,241].

As to claim 1, Baun et al. teach a computer implemented method and corresponding apparatus for operating an astronomical observatory (page 10, 0103) comprising the steps/means a set of astronomical hardware, said set of astronomical hardware being located at the observatory site and supplying the means for making celestial observations (page 3, 0046); and controlling said set of astronomical hardware according to and for capturing these observations in a digital format (page 14, 0131). The difference between

the claim and Baun et al. is a web browser, said browser providing the means for the user to be able to send request to the observatory, and receive the status and results of these requests by utilizing an http protocol, said web browser further providing a rich graphical interface for the user which may include displays of the status and results of the requests made by the user to various components of the system as they occur in real time; a web server, said web server providing the means for transmitting and receiving communications to and from said web browser utilizing an http protocol, said web server further including the capability of controlling said set of astronomical hardware according to requests sent to said web server via said web browser from the user. Yoshimura et al. shows the web browser (column 14, lines 50-60), said browser providing the means for the user to be able to send request to the observatory (page 14, lines 38-67), and receive the status and results of these requests by utilizing an http protocol, said web browser further providing a rich graphical interface for the user which may include displays of the status and results of the requests made by the user to various components of the system as they occur in real time (column 6, lines 17-50); and a web server, said web server providing the means for transmitting and receiving communications to and from said web browser utilizing an http protocol, said web server further including the capability of controlling said set of astronomical hardware according to requests sent to said web server via said web browser from the user (column 5, lines 41-67). It would have been obvious to one of ordinary skill in the art, having the teachings of Baun et al. and Yoshimura et al. before them at the time the invention was made to modify the operating an astronomical observatory as taught by Baun et al. to include the capability of controlling the set of hardware according to requests sent to the web server via the browser from the user of Yoshimura et al., in order to manipulate the observatory either remotely or locally in real

time and independent of personnel support located at the observatory site as taught by Yoshimura et al.

As to claim 2, Baun et al. also teach the set of astronomical hardware including a telescope, said telescope being composed of a telescopic optics system allowing magnified observation of the sky to take place, and a telescope mount capable of controlling the position of the telescopic optics system for the purpose of pointing to, and tracking on, celestial objects (page 1, 0009).

As to claim 3, Baun et al. fail to clearly teach that the set of astronomical hardware further including an imaging camera, said imaging camera being located at said telescope, said imaging camera being positioned so as to be able to capture an image of a celestial object at which said telescope is aimed, said imaging camera further capturing said image of the celestial object in a digital format. However, Yoshimura et al. teach the set of astronomical hardware (column 5, line 41 through column 6, line 35). It would have been obvious to one of skill in the art, at the time the invention was made, to combine Yoshimura's teaching of the set of astronomical hardware to Baun et al. Motivation of the combining is to capture the image of the celestial object in order to control the astronomical observatory.

As to claim 4, Baun et al. fail to clearly teach that web server including a request manager, said request manager being responsible for listening for, and responding to requests sent to said web server by said web browser, said request manager further being relied upon to queue requests from said web browser in order to permit said set of astronomical hardware to execute the requests in an orderly fashion, said request manager also providing the means for sending information back to said web browser utilizing an http protocol. However, Yoshimura et al. teach the web server at column 3, lines 38-65. It would have been obvious to one of skill in the art, at the time the invention was made, to

combine Yoshimura's teaching of the web server to Baun et al. Motivation of the combining is to help user to control the astronomical observatory through a web server.

As to claim 5, Baun et al. show a power manager, being able to power on or off any or components of said set of astronomical hardware (figures 3-7, page 1, 0004 and page 3, 0050). Baun et al. also fail to clearly teach web server. However, Yoshimura teaches the feature at column 14, lines 50-60. It would have been obvious to one of skill in the art, at the time the invention was made, to combine Yoshimura's teaching of the web server to Baun et al. Motivation of the combining is to help user to control the astronomical observatory through a web server.

As to claim 6, Baun et al. fail to clearly teach that web server including a user database, said user database containing a list of user account information for use in determining if and when a user should be allowed to control the observatory. However, Yoshimura et al. also show the web server includes a user database at column 3, line 38 through column 4, line 20. It would have been obvious to one of skill in the art, at the time the invention was made, to combine Yoshimura's teaching of the web server including a user database to Baun et al. Motivation of the combining is to help user a better way to control the astronomical observatory by using a database.

As to claim 7, Baun et al. also shows a user manager, said user manager accessing said user database and using the information contained therein to serve as a gate by which the user must gain entrance if he/she wishes to control the observatory, said user manager further controlling the scheduling of users for control of the observatory at specific times (page 1, 0009 and page 2, 0014). Baun et al. fail to clearly teach web server. However, Yoshimura teaches the feature at column 14, lines 50-60. It would have been obvious to one of skill in the art, at the time the invention was made, to combine Yoshimura's teaching

of the web server to Baun et al. Motivation of the combining is to help user to control the astronomical observatory through a web server.

As to claim 8, Baun et al. provides a telescope manager and a telescope driver, said telescope manager to generate and semi specific directions to said telescope based on requests made by the user, said telescope manager further being able to receive and said telescope driver being capable of translating communications between said telescope and said telescope manager (page 5, 0058, page 10, 0103 and page 14, 0131). Baun et al. fail to clearly teach web server. However, Yoshimura teaches the feature at column 14, lines 50-60. It would have been obvious to one of skill in the art, at the time the invention was made, to combine Yoshimura's teaching of the web server to Baun et al. Motivation of the combining is to help user to control the astronomical observatory through a web server.

As to claim 9, Baun et al. fail to clearly teach the web server including an imaging camera manager and an imaging camera driver, and send specific directions to said imaging camera said imaging camera manager further serving to process information from said imaging camera as well as acting as an image reducer for images generated by said imaging camera, and said imaging camera driver being capable of translating communications between said imaging camera and said imaging camera manager.

However, Yoshimura et al. also show the web server including an imaging camera manager at column 7, line 42 through column 8, line 36. It would have been obvious to one of skill in the art, at the time the invention was made, to combine Yoshimura's teaching of the web server including an imaging camera manager to Baun et al. Motivation of the combining is to help user a better way to control the astronomical observatory by using an imaging camera manager.

As to claim 10, the claim is analyzed as previously discussed with respect to claims 1-9.

Baun et al. fail to clearly teach the web browser, the web server including a request manager and the astronomical hardware including an imaging camera. However,

Yoshimura et al. show the web browser at page 14, lines 50-60, the astronomical hardware including an imaging camera at column 5, line 41 through column 6, line 35 and the web server including a request manager at column 3, lines 38-65. It would have been obvious to one of skill in the art, at the time the invention was made, to combine

Yoshimura's teaching of the web browser, the astronomical hardware including an imaging camera and the web server including a request manager to Baun et al. Motivation of the combining is to help user a better way to control the astronomical observatory.

As to claims 11 and 20, Baun et al. demonstrate the set of astronomical hardware further including a dome, said dome providing a protective shell for the observatory against weather and other elements of nature, said dome also having a retractable opening so as to permit said telescope access to the sky (page 3, 0046-0049).

As to claims 12 and 21, Baun et al. also demonstrates the set of astronomical hardware further including an auto-guiding camera, said auto-guiding camera being located at said telescope and being oriented so as to be able to find a celestial object in the sky near the object at which said telescope is aimed (page 9, 0087 and page 13, 0119). Baun et al. fail to clearly teach web server. However, Yoshimura teaches the feature at column 14, lines 50-60. It would have been obvious to one of skill in the art, at the time the invention was made, to combine Yoshimura's teaching of the web server to Baun et al. Motivation of the combining is to help user to control the astronomical observatory through a web server.

As to claims 13, 22-23, 25 and 28-29, Baun et al. disclose a dome manage and a dome driver, said dome manager being the means to generate and send specific directions to

said dome, said some driver being capable of translating any and all communications between said dome and said dome manager (page 3, 0046-0049). Baun et al. fail to clearly teach web server. However, Yoshimura teaches the feature at column 14, lines 50-60. It would have been obvious to one of skill in the art, at the time the invention was made, to combine Yoshimura's teaching of the web server to Baun et al. Motivation of the combining is to help user to control the astronomical observatory through a web server.

As to claim 14, Baun et al. also disclose a telescope model manager, said telescope model manager being responsible for quantifying systematic errors inherent in said telescope, these errors include but are not limited to offset or bias errors, polar misalignment, refraction, non-perpendicular axis, gear errors, tube flexure, and fork flexure, said telescope model manager quantifying these errors by using a mapping process to create a model coordinate system which is then translated into the coordinate system of said telescope (page 6, 0066 and 0069 and page 7, 0077). Baun et al. fail to clearly teach web server. However, Yoshimura teaches the feature at column 14, lines 50-60. It would have been obvious to one of skill in the art, at the time the invention was made, to combine Yoshimura's teaching of the web server to Baun et al. Motivation of the combining is to help user to control the astronomical observatory through a web server.

As to claims 15 and 26, Baun et al. show an auto-guiding camera manager and an auto-guiding camera driver, said auto-guiding camera manager being the means to generate and send specific directions to said auto-guiding camera, said auto-guiding camera further being able to compare the location of a celestial object in different images in order to provide corrections for a tracking rate of said telescope as it follows an object, said auto-guiding camera driver being capable of translating any and all communications between said auto-guiding camera and said auto-guiding camera manager (page 9, 0087

and page 13, 0119). Baun et al. fail to clearly teach web server. However, Yoshimura teaches the feature at column 14, lines 50-60. It would have been obvious to one of skill in the art, at the time the invention was made, to combine Yoshimura's teaching of the web server to Baun et al. Motivation of the combining is to help user to control the astronomical observatory through a web server.

As to claims 16 and 27, Baun et al. also teach a broadcast manager, said broadcast manager serving the purpose of broadcasting the status and results of requests made by the user to any number of outside observers while ensuring that these broadcasts do not slow the system down, said broadcast manager further being capable of sending these broadcasts utilizing a number of different information transfer technologies, such as file transfer servers, gopher, email, fax, and/or modem (page 13, 0120 and 0123). Baun et al. fail to clearly teach web server. However, Yoshimura teaches the feature at column 14, lines 50-60. It would have been obvious to one of skill in the art, at the time the invention was made, to combine Yoshimura's teaching of the web server to Baun et al. Motivation of the combining is to help user to control the astronomical observatory through a web server.

As to claim 17, Baun et al. provide a celestial object database and a celestial object database manager, said celestial object database containing both ephemeris and graphical data for celestial objects including but not limited to galaxies, minor planets, planets, satellites and stars for any field of view, for any date and time, and said celestial object database manager providing the means to be able to access said celestial object database to obtain any information contained therein that has been requested by the user (page 1, 0009, page 2, 0014 and page 16, 0142). Baun et al. fail to clearly teach web server. However, Yoshimura teaches the feature at column 14, lines 50-60. It would have been obvious to one of skill in the art, at the time the invention was made, to combine

Yoshimura's teaching of the web server to Baun et al. Motivation of the combining is to help user to control the astronomical observatory through a web server.

As to claim 18, Baun et al. also provide a celestial image database and a celestial image database manager, said celestial image database containing a set of reference images that cover the entire night sky, these images being essential for certain types of discovery work like supernova and minor planet discovery, and said celestial image database manager providing the means to be able to access said celestial image database to obtain any information contained therein that has been requested by the user, said celestial image database manager further being able to automatically produce and transmit to said web browser a reference image of any object captured in an image by said telescope and said imaging camera (page 16, 0142-0144 and 0147). Baun et al. fail to clearly teach web server. However, Yoshimura teaches the feature at column 14, lines 50-60. It would have been obvious to one of skill in the art, at the time the invention was made, to combine Yoshimura's teaching of the web server to Baun et al. Motivation of the combining is to help user to control the astronomical observatory through a web server.

As to claim 19, Baun et al. fail to clearly teach the web browser, the web server including a request manager and the astronomical hardware including an imaging camera. However, Yoshimura et al. show the web browser at page 14, lines 50-60, the astronomical hardware including an imaging camera at column 5, line 41 through column 6, line 35 and the web server including a request manager at column 3, lines 38-65. It would have been obvious to one of skill in the art, at the time the invention was made, to combine Yoshimura's teaching of the web browser, the astronomical hardware including an imaging camera and the web server including a request manager to Baun et al. Motivation of the combining is to help user a better way to control the astronomical observatory. Baun et al.

Art Unit: 2179

provide the web server further including a celestial object database and a celestial object database manager (page 1, 0009, page 2, 0014 and page 16, 0142); and the web server further including a celestial image database and a celestial image database manager (page 16, 0142-0144 and 0147).

As to claims 24 and 30, Baun et al. demonstrate the set of astronomical hardware further including a set of weather station instrumentation, said set of weather station instrumentation providing information about the weather at the observatory site, this information might include such measurements as wind speed, temperature, air pressure, and/or humidity (page 1, 0003 and page 3, 0051). Baun et al. fail to clearly teach web server. However, Yoshimura teaches the feature at column 14, lines 50-60. It would have been obvious to one of skill in the art, at the time the invention was made, to combine Yoshimura's teaching of the web server to Baun et al. Motivation of the combining is to help user to control the astronomical observatory through a web server.

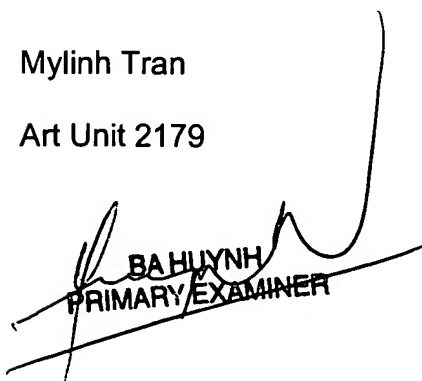
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mylinh Tran whose telephone number is (571) 272-4141. The examiner can normally be reached on Monday-Thursday from 8.00AM to 4.30PM.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached on (571) 272-4136.

Mylinh Tran

Art Unit 2179



BAHLIYNH
PRIMARY EXAMINER